

Amendments to the Claims

1. (original) A chimeric polypeptide which is engineered to include a domain comprising a sequence that directs the attachment of at least one glycosylphosphatidylinositol molecule, wherein said polypeptide is not a ligand binding domain of a cytokine receptor and is for use as a pharmaceutical.
2. (currently amended) A The polypeptide according to Claim 1 wherein said polypeptide is a cytokine or variant thereof.
3. (currently amended) A The polypeptide according to Claim 1 ~~or 2~~ wherein said domain comprises the amino acid sequence: PSPTPTETAT PSPTPKPTST PEETEAPSSA TTLISPLSLI VIFISFVLLI (SEQ ID NO: 12).
4. (currently amended) A The polypeptide according to Claim 1 ~~or 2~~ wherein said domain comprises the amino acid sequence:
LVPRGSIEGR GTSITAYNSE GESAEFFFL ILLLLLVLV (SEQ ID NO: 13).
5. (currently amended) A The polypeptide according to Claim 1 ~~or 2~~ wherein said domain comprises the amino acid sequence:
TSITAYKSE GESAEFFFL ILLLLLVLV (SEQ ID NO: 14).
6. (currently amended) A The polypeptide according to ~~any of Claims 1-5~~ claim 1 wherein said polypeptide includes at least one glycosylphosphatidylinositol molecule.
7. (currently amended) A The polypeptide according to ~~any of Claims 2-5~~ claim 2 wherein said polypeptide is selected from the group consisting of: growth hormone; leptin; erythropoietin; prolactin; TNF, interleukins (IL), IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-9, IL-10, IL-11; the p35 subunit of IL-12, IL-13, IL-15; granulocyte colony stimulating factor (G-CSF); granulocyte macrophage colony stimulating factor (GM-CSF); ciliary neurotrophic factor

(CNTF); cardiotrophin-1 (CT-1); leukemia inhibitory factor (LIF); oncostatin M (OSM);
interferon, IFN α and IFN γ ,

8. (currently amended) A The polypeptide according to ~~any of Claims 1-7~~ claim 1 wherein said polypeptide has been modified by addition, deletion or substitution of at least one amino acid residue to provide a sequence variant of said polypeptide.

9. (currently amended) A The polypeptide according to Claim 8 wherein said variant polypeptide is growth hormone which has been modified in at least one growth hormone receptor binding domain.

10. (currently amended) A The polypeptide according to Claim 9 wherein said growth hormone receptor binding domain is in site 1 of growth hormone.

11. (currently amended) A The polypeptide according to Claim 9 wherein said growth hormone receptor binding domain is modified in site 2 of growth hormone.

12. (currently amended) A The polypeptide according to Claim 9 wherein said growth hormone receptor binding domain is modified in site 1 and site 2 of growth hormone.

13. (currently amended) A The polypeptide according to Claim 10 ~~or 12~~ wherein said modification is selected from the group consisting of: histidine 18 with alanine or aspartic acid; and/or histidine 21 with asparagine; and/or glutamine 22 with alanine; and/or phenylalanine 25 with alanine; and/or aspartic acid 26 with alanine; and/or glutamine 29 with alanine; and/or glutamic acid 167 with alanine; and/or aspartic acid 171 with serine; and/or lysine 172 with serine or alanine; and/or isoleucine 179 with tyrosine, as represented by the growth hormone amino acid sequence in Figure 2 (amino acids 21-254 of SEQ ID NO: 2).

14. (currently amended) A The polypeptide according to Claim 13 wherein said modification consists of the the amino acid substitutions: histidine 18 aspartic acid; histidine 21 asparagine;

arginine 167 asparagine; aspartic acid 171 arginine; glutamic acid 174 serine; and isoleucine 179 threonine; as represented by the GH amino acid sequence in Figure 2 (amino acids 21-254 of SEQ ID NO: 2).

15. (currently amended) A The polypeptide according to Claim 13 wherein said modification consists of the amino acid substitutions: histidine 18 alanine; glutamine 22 alanine; phenylalanine 25 alanine; aspartic acid 26 alanine; glutamine 29 alanine; glutamic acid 65 alanine; lysine 168 alanine; and glutamic acid 174 alanine; as represented by the GH amino acid sequence in Figure 2 (amino acids 21-254 of SEQ ID NO: 2).

16. (currently amended) A The polypeptide according to Claim 11 wherein said site 2 modification is to amino acid residue glycine 120 of the amino acid sequence presented in Figure 2 (amino acids 21-254 of SEQ ID NO: 2).

17. (currently amended) A The polypeptide according to Claim 16 wherein said site 2 modification is a substitution of glycine for an amino acid selected from the group consisting of: arginine; alanine; lysine; tryptophan; tyrosine; phenylalanine; and glutamic acid.

18. (currently amended) A The polypeptide according to Claim 17 wherein said site 2 substitution is glycine 120 for arginine or lysine or alanine.

19. (currently amended) A The polypeptide according to Claim 1 wherein said polypeptide is an antibody.

20. (currently amended) A The polypeptide according to Claim 19 wherein said antibody is a monoclonal antibody, or the active binding fragment thereof.

21. (currently amended) A The polypeptide according to Claim 20 wherein said monoclonal antibody is a humanised antibody.

22. (currently amended) ~~A~~ The polypeptide according to Claim 20 wherein said monoclonal antibody is a chimeric antibody.
23. (currently amended) ~~A~~ The polypeptide according to Claim 20 wherein the active the active binding fragment is selected from the group consisting of: F(ab')₂, Fab, Fv and Fd fragments; CDR3 regions; and single chain antibody fragments.
24. (currently amended) ~~A~~ The polypeptide according to Claim 23 wherein said fragment is a single chain antibody fragment.
25. (currently amended) An oligomeric polypeptide wherein said polypeptide comprises at least two polypeptides according to ~~any of Claims 1-24~~ claim 1 which two polypeptides are linked via a linking molecule.
26. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 25 wherein said linker comprises at least one copy of the peptide: Gly Gly Gly Gly Ser (SEQ ID NO: 15).
27. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 26 wherein said linker comprises at least 2, 3, 4 or 5 copies of said linker.
28. (currently amended) ~~An~~ The oligomeric polypeptide according to ~~any of Claims 25-27~~ claim 25 wherein said linker further comprises a protease sensitive cleavage site.
29. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 28 wherein said cleavage site is sensitive to a serum protease.
30. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 29 wherein said cleavage site comprises the amino acid sequence: LVPRGS (SEQ ID NO: 16).

31. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 29 wherein said cleavage site comprises the amino acid sequence PGISGGGGGSGGGG (SEQ ID NO: 20).

32. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 29 wherein said cleavage site comprises the amino acid sequence: LVPRGS PGISGGGGG (SEQ ID NO: 19).

33. (currently amended) ~~An~~ The oligomeric polypeptide according to Claim 29 wherein said cleavage site comprises at least two copies of the amino acid sequence SGGGG (SEQ ID NO: 17) which flank said cleavage site.

34. (currently amended) An isolated nucleic acid molecule comprising a nucleic acid sequence which encodes a the polypeptide according to claim 1 ~~any of Claims 1-33~~.

35. (currently amended) A vector comprising a the nucleic acid molecule according to Claim 34.

36. (currently amended) ~~A~~ The vector according to Claim 35 wherein said vector is an expression vector adapted for eukaryotic gene expression.

37. (currently amended) A cell transfected with the nucleic acid molecule of claim 34 ~~or vector according to any of Claims 34-36~~.

38. (currently amended) A method to prepare the polypeptide of claim 1, ~~a polypeptide or an oligomeric polypeptide according to any of Claims 1-33~~ comprising:

- i) growing a cell transfected with a nucleic acid sequence which encodes the polypeptide of claim 1 ~~according to Claim 37~~ in conditions conducive to the manufacture of said polypeptide; and
- ii) purifying said polypeptide from said cell, or its growth environment.

39. (currently amended) A cell wherein said cell presents, at least at its cell surface, a polypeptide or oligomeric polypeptide according to claim 1 ~~any of Claims 1-33~~.
40. (currently amended) A method of treatment of an animal, ~~preferably a human,~~ comprising administering an effective amount of a the isolated nucleic acid molecule of claim 34 ~~and/or vector and/or polypeptide and /or cell according to any of Claims 1-37 or 39~~.
41. (new) A method of treatment of an animal, comprising administering an effective amount of the polypeptide of claim 1.
42. (new) A method of treatment of an animal, comprising administering an effective amount of the cell of claim 39.